# WATER QUALITY MEMORANDUM

# **Utah Coal Regulatory Program**

December 23, 2008

TO:

Internal File

THRU:

Jim Smith, Permit Supervisor 25 ct/14/09

FROM:

April A. Abate, Environmental Scientist II OCO 1-13-09

RE:

2008 3rd Quarter Water Monitoring, Hiawatha Coal Company (HCC), Hiawatha

Mine, C/007/0011-WO08-3

Hiawatha Coal Company has supplied schedules for water monitoring and parameter reporting in Tables 7-12 through 7-17, in the MRP, updated on June 6, 2003.

The Hiawatha mine is in the operational phase. Coal fines are being extracted from the #1 tailings ponds and trucked to Bear Canyon where the fines are blended with the mined coal. There is currently no underground mining taking place at the Hiawatha Mine. On July 21, 2008, the Division of Oil, Gas, and Mining (the Division) received an application for Phase I Bond release on a 106.5-acre portion of the Hiawatha mine property. The application is presently under review by the Division.

# 1. Was data submitted for all of the MRP required sites?

YES[] NO[X]

*Identify sites not monitored and reason why, if known:* 

Springs

HCC monitors six springs at the minesite, SP-2, SP-4, SP-5, SP-11, SP-12 and SP-13. Operational sampling is established in the MRP as two times per year, for spring sites, in June and October. Spring sampling this quarter occurred from June 25-30, 2008. No flow was reported at spring sample location SP-13. Samples are analyzed for parameters identified in Table 7-12.

All springs were monitored during this quarter.

Streams

HCC currently monitors field parameters of streams on a monthly basis from April through October, (Table 7-16). Water Quality samples are collected and analyzed for flows in April and September. No flow was reported in August and September for stream sample locations: ST-3A, ST-3B, and ST-4B.

Stream sample location ST-3B, located below the Middle Fork sediment pond

was not monitored in July 2008.

**UPDES** 

There are a total of 13 UPDES sample locations listed in Permit #UT0023094 for

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the Hiawatha Mine used to establish discharge quality. UPDES locations are monitored monthly according to Table 7-13. Only two sites have yielded flow (D001 and D002). The UPDES locations D003 through D013 are listed in the current UPDES permit, which is due to expire on September 30, 2009. During the third quarter of 2008, UPDES sample location D005 was not monitored. Sample locations D012 and D013 have been monitored by HCC, but not listed as active sample points in the Division database. The Division has corrected this and will subsequently be monitoring all UPDES sample locations outlined below:

Pond No.	Location
D001	Mohrland Portal
D002	Overflow at Hiawatha
D003	Upper Coal Storage Yard
D004	North of Slurry Pond No. 1
D005	East of Slurry Pond No. 4
D006	North East of Slurry Pond No. 5
D007	South East of Slurry Pond No. 5
D008	Middle Fork Mine Yard
D009	South Fork Mine Yard
D011	South Fork Truck Loading Facility
D012	Mohrland Pipeline Drain
D013	King 6 Water Tank Overflow

## UPDES location D005 was not monitored this quarter.

Wells YES [ ] NO [ ] N/A, No wells on site.

### 2. Were all required parameters reported for each site?

Springs YES [X] NO []

Streams YES [X] NO [ ]

**UPDES** YES [X ] NO [ ]

Wells YES [ ] NO [ ] N/A

### 3. Were irregularities found in the data?

Springs YES [X] NO []

Spring sample location SP-2 was outside of more than two standard deviations for the following parameters: dissolved calcium, dissolved sodium, and total alkalinity. This sample location is the North Fork Spring located on top of Gentry Mountain above North Fork and represents spring water quality conditions upstream of the mine.

Streams YES [X] NO []

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Stream sample location ST-3 was outside two standard deviations for the following parameters: dissolved calcium, dissolved magnesium, dissolved sodium, hardness, and total cations and anions. This sample location is the Middle Fork of Miller Creek near the confluence with the North Fork of Miller Creek downstream of the former King 4 and King 5 mining areas.

# UPDES YES [X] NO [ ]

UPDES sample location D002 reported data outside of at least two standard deviations for the following parameters: specific conductivity, total suspended solids (TSS), and total iron. This sample point represents the discharge from the culinary overflow from the Hiawatha drinking water system. The TSS sample was unusually high, exceeding almost 10 standard deviations the average value. The total iron value exceeded four standard deviations.

Wells YES[] NO[] N/A

4. On what date does the MRP require a five-year resampling of baseline water data.

Resampling due date: July 2009

5. Based on your review, what further actions, if any, do you recommend?

UPDES sample D002 reported elevated levels of TSS and total iron this quarter. No action is required at this time, however, the Division will monitor the 4<sup>th</sup> quarter 2008 data collected for this point to determine if any upward trends in TSS and total iron concentrations are developing.

For spring sample SP-2 and stream sample ST-3, the parameters were outside of two standard deviations mentioned previously and will be monitored along with 4<sup>th</sup> quarter 2008 data to determine if any trends in these parameter concentrations are developing.

- 6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? [ ] Yes [ X ] No
- 7. Follow-up from last quarter, if necessary.
  Did the Mine Operator submit all the missing and/or irregular data (datum)?

Select parameters such as TSS, TDS, total iron, pH, and oil and grease from UPDES sampling locations D001 and D002 were missing during the 2<sup>nd</sup> quarter evaluation of the water monitoring report. These data have since been shown in the pipeline as uploaded and reported.